1. How often will the levees have to be raised during construction?

After the initial construction is accomplished there will be two additional lifts that will be required to bring them to the proper grading. It takes a number of years for all the subsidence to take place and in the meantime we are working on other levees in the system; the subsidence depends on the area where the levee is located and the type of soil but it does take a number of years for the settlement to take place. When a levee is built we build it about a foot above the level that we want it to be and there will be continued subsidence. There will also have to be some maintenance.

2. How long will the locks be operational during normal periods of time? (Mr. Ducot

The operation of the Seabrook Lock will dependupon the velocity of the wind, as well as the rain, tidal exchange at that particular location. It will tend to be operated more often than the one at the Rigolets. We estimate at the Rigolets, for example, it will possibly be operated about five hours per day out of one half of each month.

3. Could the gates at the Rigolets and Chef be designed so that small pleasure craft could go through without using the locks? (Mr. Ducote)

The flood gate structure will not be navigable at all; the only navigable channel at the Rigolets will be the lock, there will be no other way to get through. There will not be a lock at the Chef; there will be a gate that is open at all times, this will even be during high velocity tidal inflow and tidal outflow.

4. Is it feasible to move the Seabrook structure to some point in the MRGO and, secondly, if not have you considered the navigation hazard of the Seabrook structure and working out some forebay apparatus that would be safer for navigation. (Mr. Lennox)

We had hoped that an alternative would have provided the lock within the MRGO portion itself; we concluded, based on our designs and cost, that it was more economical to put the lock at the Seabrook location. As far as the second part of the question, we are planning to construct a breakwater which would be lakeward of the lock in order to provide a protected area for navigation.

5. Will you utilize the embankment of Highway 90 between the Chef and the Rigolets, meaning just like it is now? (Sen. Hickey)

Basically yes; in most of the heavy storms and hurricanes water does go over Highway 90 and it is expected, in our time, that it will overtop Highway 90 at some point and time for a brief period.

6. Will this only produce one foot of water in Lake Pontchartrain? (Sen. Hickey)

Yes, this is what our studies have revealed; Highway 90 wherever it is or above elevation 9 will remain the same.

Is this going to require expropriation of property in the Chef or Rigolets area? (Sen. Hickey)

The acquisition of real estate for the project is the responsibility of local interests and in this particular case the acquisition of real estate for the barrier is being handled by the Orleans Levee Board.

Mr. LeMieux: Yes, there will be property that the Levee Board will have to expropriate. We are attempting to buy it and have already obtained the rights-of-way on the west side of the Chef complex leading up to the Chef barrier. We are negotiating now for the rights-of-way on the east side of the Chef and we will be going into the Rigolets area shortly. If we have to expropriate we will but so far we have been able to get the property by buying and paying fair market price for it.

8. Isn't most of the land around the Chef owned by the State of Louisiana?

No, not in the direction that this project will go in. A lot of the property is owned by the railroad, hunting and fishing clubs and camps; we are attempting not to have to move people from their camps.

- 9. How far, or how many feet from the Chef Pass will there be infiltration?

  At least 1,000 feet and perhaps further.
- 10. Regarding the effect of the tide going through the barriers it now goes rushing in and out and when the opening is made smaller it is bound to have some effect on this tide, won't it?

There will be an increase in the velocity of the flow during the tidal exchange. On the average the tidal velocity at the location is on the order of about two feet per second during tide exchange and we expect that with the structure in place the velocity will increase to about 6 to 6 1/2 feet per second through the structure itself; back from the structure the velocity will go back to its original flow of about two feet per second.

11. If the Rigolets is, for example, 1,000 feet wide and 30 feet deep and you are going to shrink the passage of water to about 30 to 35 percent of that area would it satisfy more people if you put flood gates over the entire structure at the Rigolets and not build these earthen dams? and how much more money are you talking about?

We would be talking about a considerable amount of money in order to accomplish that type of span. Through our model test we are trying to come up with a structure that would give us approximately the tidal and water exchange that occur naturally in the Rigolets and also the Chef. .We achieve basically 90% of normal transfer at this particular location; from an economical standpoint that is an acceptable level. We find that at 90% we are not going to adversely affect the ecological regimen. We find that from an economical standpoint we are producing the type of protection that we feel the New Orleans area needs, or the Lake Pontchartrain area needs. This is a project where 30% of all project costs are borne by the local people and 70% of the cost are from federal funds.

Mr. LeMieux: The cost is broken down between the various parishes and is based on the economic benefit each parish will get from the project. The total local share is 30%; of the total local share from the five parishes around the lake, the Orleans Levee Board is paying around 70% of the 30% because Orleans Parish gets the biggest benefit from the project. This project, because of inflation, depreciates somewhere between 20 and 30 million dollars per year. The dollars that the Orleans Levee Board has are limited and our projection shows that we are able to make all the payments necessary and sign an act of assurance with the federal government that we will pay our share based on the project's estimated cost plus normal inflation and the number of years it will take to complete it if we do it now. If we have a delay of a year or two then we can forget about this project's completion; we would need new legislation of some kind because the Orleans Levee Board would not be in a position due to inflation to meet its share of the money.

12. A lot of people do not understand talk about hydrolics and costs of this project; who is going to tell these people where they should go during a hurricane if this project does not go throug? what about people's lives? (Mr. Sanders)

Yes, people's lives are very important and I think that is the key to the whole thing.

13. What are the leves of differences in the lake? (Mr. Perez)

We would expect that the level would be about 2 feet.

14. In your studies, according to the tides how long would these structures be closed?

That would depend on the storm. The average life of a hurricane is about nine days and we estimate that we would have to close the structure about three out of those nine days. We also estimate that we would have a serious threat of a hurricane about every year and a half or two years so you can expect the structure to be closed about three days every two years or so.

15. According to the shaded area on the chart you would have to close these gates and that must happen more than once a year?

It would depend on the path of the hurricane; the path might be traveling parallel or going away from the shore; we may close it and then open it immediately .

Mr. LeMieux: It really depends on the direction of the wind and what effects this has on the tides.

16. Suppose the USCE has not put into their studies the conditions of any hurricanes we have had in the past five years? (Mr. Perez)

(So much talking going on at the Board table where the mikes were placed that we could not pick up this answer.)

17. What about the cost, you said the high level plan cost one and a half times more than the barrier plan, is that the entire high level plan including the north side of Lake Pontchartrain levees? (Mr. Perez)

No, there was never any plan to have levees on the north side.

8. Do I understand that what is generally called the high level plan does not include any levee protection on the north side at all; it protects the south shore only, it does nothing for the north shore?

It consists of only existing levees.

19. If the basic levees today are 14 ft. and you are adding 5 ft. that will make them 19 ft. plus more pumping stations, I understand about six, would this cost more than the barrier plan?

The barrier plan has the levee cost plus the structure involved in it. The thing that causes the high level plan to be more expensive than the barrier plan is the fact that the cost of raising levees to the extreme height from these four foundations is extremely expensive and to complete the high level plan to provide the same protection on the south shore as the barrier plan provides would cost more money than it would cost to complete the barrier.

20. What do the barriers themselves cost?

The barriers cost roughly \$150 million; the barrier plan a little over \$300 million.

21. You mean the Seabrook Lock Structure has to go anyway? (Mr. Perez)

Yes, the Seabrook Lock has to go any way because what's happening in the Industrial Canal is the flow of water since the MRGO has opened up has created a tidal flow that causes tugs to run into our street bridges, tearing them up and causing accidents.

22. The Rigolets and the Chef structures cost approximately \$150 million and this does not include the Seabrook Lock? (Mr. Perez)

Between \$125 million and \$150 million leaving Seabrook Lock out.

23. Then the only reason you are installing structures at the Chef and Rigolets is that it would cost more to raise levees and renovate the pumping stations? (Mr. Perez)

It provides protection for the north shore which they would not get otherwise. And in addition, it improves the drainage syst em of Orleans and Jefferson Parishes and you get protection a lot sooner than you would with the high level plan.

24. Then the only difference between the two plans is 5 ft. of water in the lake? We have never had 19 ft. of water in the lake so we cannot say what will happen. (Mr. Perez)

We have had water to come and wash away the French Quarter, from the lake.

. will turn in his report by the end of this calendar year but this does

25. Since the levees have been built we have never had 19 ft. of water in the lake, which means that you would have to add to the present levees from the 17th Street Canal to the east, every levee would have to be increased; so the difference is that your plan will increase these levees and add 5 ft. to existing levees. What I would like to know is what the cost would be?

Without the barriers we can expect water of about 13 ft. and that does not take into consideration the waves running in which they run up the slope of the levees and then over the top. As the lake gets deeper the waves get larger so if you design for a 13 ft. wave and you have larger waves which have 6 ft. on the sloping levee or 9 ft. going up the walls.

26. A lot of the opposition to the barriers seems to be from an ecological standpoint; during a hurricane how much damage will be done to the lake if there is no barrier - I mean damage from force of waves?

We had experience with Hurricane Audrey with salt water; when you have a hurricane we will still have salt water coming into the fresh and staying but in the case of the barriers we can prevent the salt water from coming into the fresh water.

Mr. LeMieux: The Wildlife and Fisheries Commission is concerned about Lake Pontchartrain getting too salty, primarily through the Industrial Canal when water from the MRGO pours into the lake. Part of the project will be so constructed that the WL&F can limit the amount of salt water that comes into Lake Pontchartrain.

27. From an environmental standpoint, which seems to be the major problem, I have never knownthe lake to be a haven for life; what is the status of the lake ecologically right now? is it merely a body of water that can be threatened or is it a dead lake like Lake Erie?

Lake Erie is beginning to recover, how long it will take we do not know but Lake Pontchartrain is a very valuable resource. The lake provides a maritime asset; we feel that it benefits the offshore region as well as what we have in the lake itself.

- 28. Four questions from John Hammond representing Mayor-Elect Morial
  - a. What does Eugene Cronin's contract consist of and when will it end?
  - b. When will the study of the Lake Pontchartrain baseline be completed?
  - c. Is designing of the structures being done within the USCE and when is the completion date?
  - d. Between December 1977 and December 1978 what contracts do you intend to let and for what amounts?

We are basically looking into whether or not there will be an impact on the national travel of maritime traffic into and out of our lake through our structures both at the Chef and the Rigolets and at Seabrook. Mr. Cronin will turn in his report by the end of this calendar year but this does not necessarily mean that his contract ends at this time.

We finalizing studies on the baseline contract and will cover a period of about two years.

The barrier design is being done within the Corps and is under an architectural type contract; the completion date is roughly two years.

We are in FY78 which started on October 1st and runs through September 30th and we have about \$10 million. One contract we had this year was relative to the levees east of the Chef and monies in this FY78 budget continue to support construction along the levees in Orleans, Chalmette and work along the MRGO.

29. Can you speculate on the upcoming court hearing in December and the Public Hearing in January?

Illiam J. Rang, AC C. City Planning Commission

John H. Ross, M.B. Borrd Herber Toepdare H. Mickey, La. State Senstor

Mr. LeMieux:

We are attempting to get the public hearing delayed because we go into court in December and if they rule against us then there will be a delay until the Corps can come up with another design. We have been told by our attorney that once we go into court that we cannot go into a public hearing until the court completes its hearing. If there is a public hearing then the opposing side will be there and will have a field days because we cannot be there to present our case. If this project is delayed then it is dead because we will not have the money to do it.

## ATTENDANCE MEETING OF 11/30/77 3:00 p.m. WITH USCE

Mr. & Mrs. C. J. Lauve Owen LeBlanc Bruce Sossaman Larry Mayne, Weather Bureau John Moore, Lake Oaks Civic Assn. Claude E. Blancq, Jr. Edward B. Benjamin Fred Chatry Col. E. J. Rush Mrs. P. J. Poelman Mrs. A. Reising D. A. Ruckman Owen Odom Jeff Floyd August Perez, III Bernel Sanders, OHSEQ, State of La. (represent Dr. William Cherry) Dan P. Kelly, OLB Board Member Gerald J. Dicharry, Jr. Cecil W. Soileau Edward Lennox, Lakeshore Property Owners Asso. Vicki Dours, representing Jefferson Parish Council Joann Velcich, Adm. Asst. for Councilman Mike Early William J. Rapp, N. O. City Planning Commission Mrs. Lucien M. Haase Blaise M. Carriere, Dept. of Streets, City of N. O. Robert J. Guizerix Richard I. Kirschman, Kirschman's Furniture Paul E. DeBlanc Mrs. A. H. Reed Wayne C. Ducote, OLB Board Member James P. Pereira, New Orleans East, Inc. Eve McWilliams Owen Jones Red Redman, East Orleans Guide E. Carlton Guillot, Jr., Guillot, Sullivan & Vogt, Consulting Engineers George Williams, T. L. James & Co., Inc. L. P. Mathews, T. L. James & Co., Inc. John R. Hammond, Representing Mayor Elect Morial (young man at Board table who asked so many questions at end of meeting) Lane Carson, State Representative Dist. 99 Charles Emile Bruneau, Representative (State) Dist. 94 Elliot Willard, Principal Booker T. Washington High School James Schumaker, Chief of Lakefront Airport Security John H. Ross, OLB Board Member Theodore M. Hickey, La. State Senator Rene Brunet, Late Terrace Property Owners Asso. George Janvier, Jr. Chester C. Watson H. B. Lansden George LaBreche John McNamara Larry Bodet O. Kelly Weld Lee Lasseigne

Helga Whittaker Philip Howe